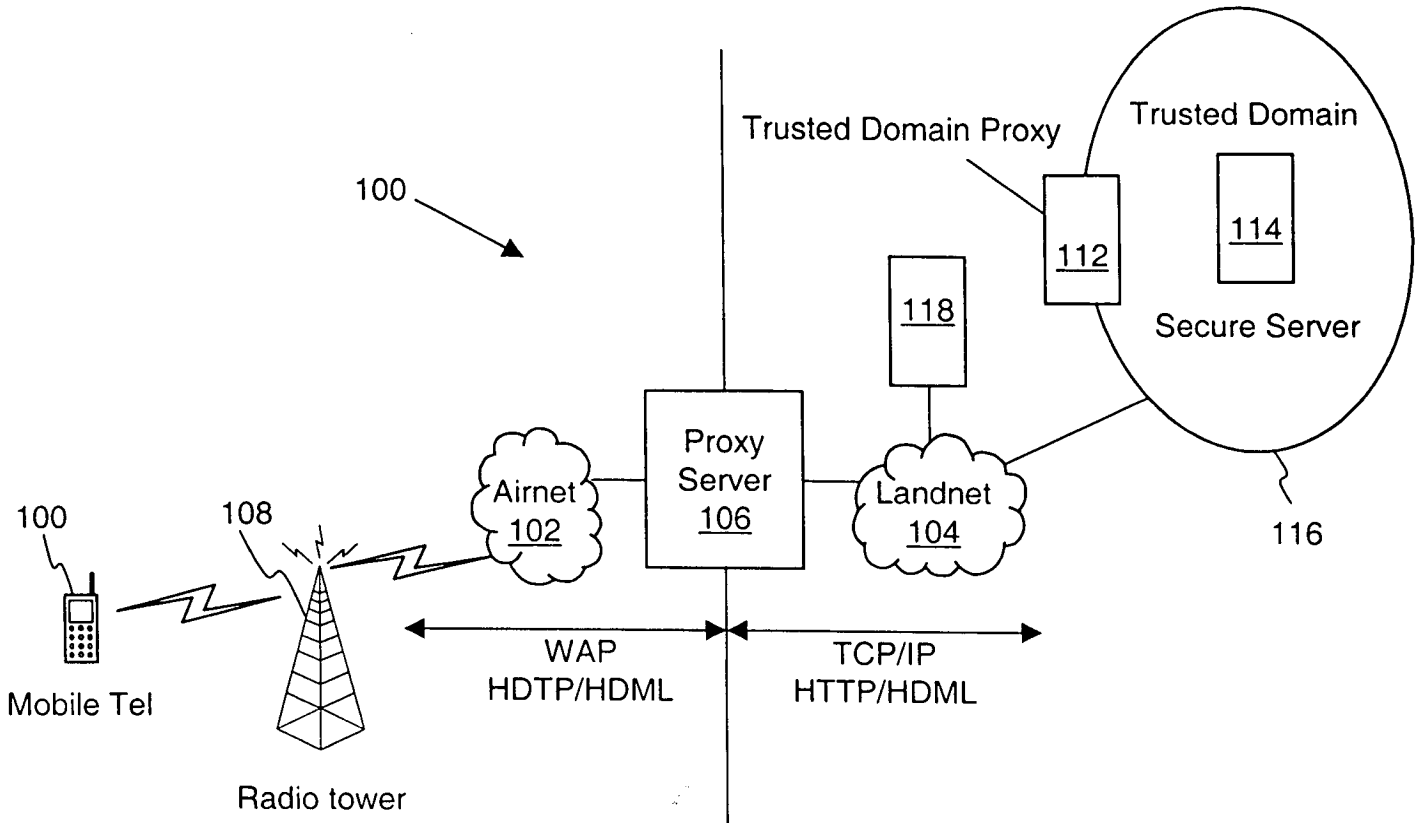
100
Trusted Domain Proxy
Trusted Domain
112
114
Secure Server
118
Proxy
Server
106
Airnet
102
Landnet
104
116
100
108
Mobile Tel
Radio tower
WAP
HDTP/HDML
TCP/IP
HTTP/HDML

FIGURE 1

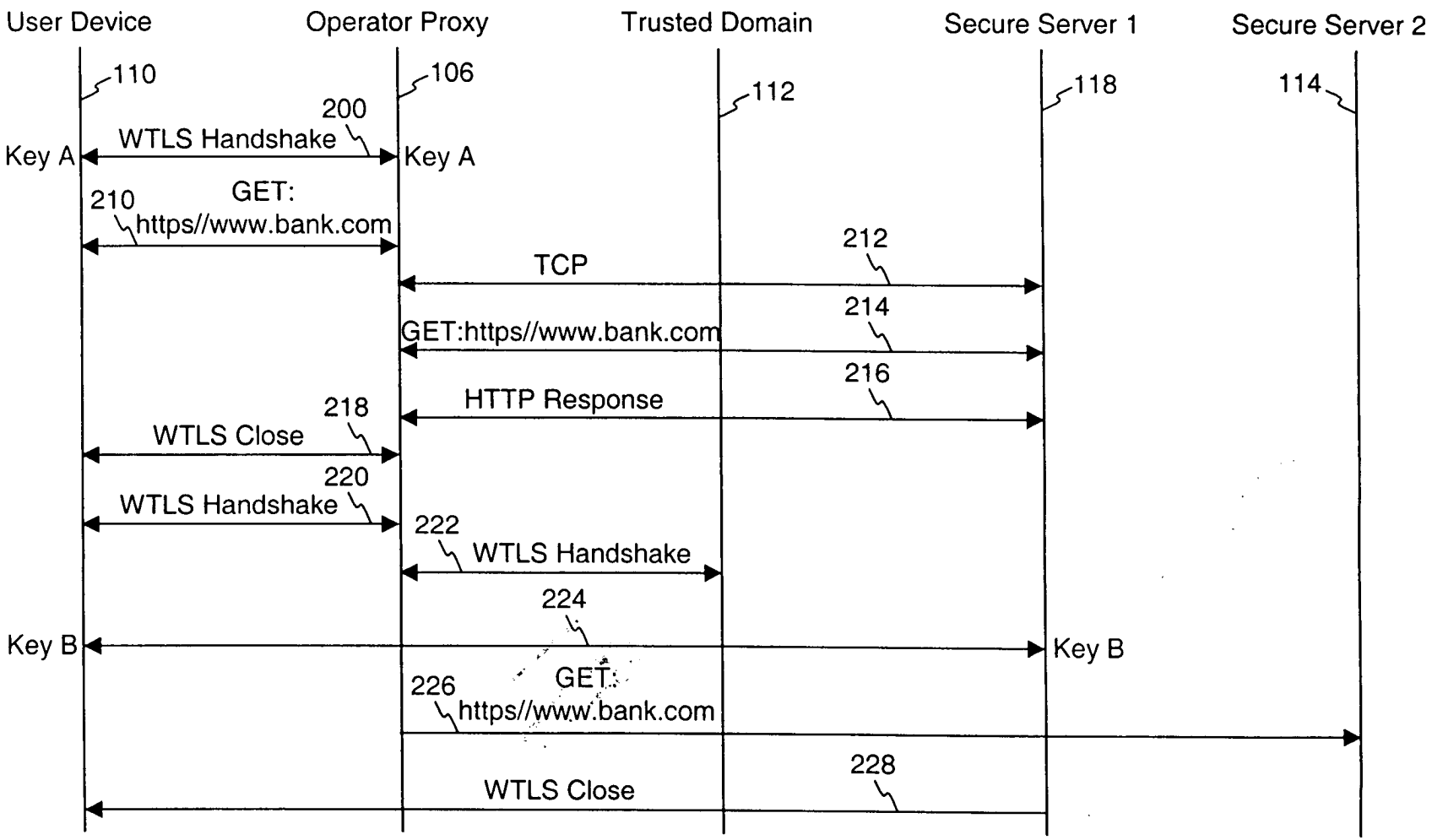
User Device
Operator Proxy
Trusted Domain
Secure Server 1
Secure Server 2
110
106
112
118
114
200
WTLS Handshake
Key A
Key A
210
GET:
https//www.bank.com
212
TCP
214
GET:https//www.bank.com
216
HTTP Response
218
WTLS Close
220
WTLS Handshake
222
WTLS Handshake
224
Key B
Key B
226
GET:
https//www.bank.com
228
WTLS Close

FIGURE 2

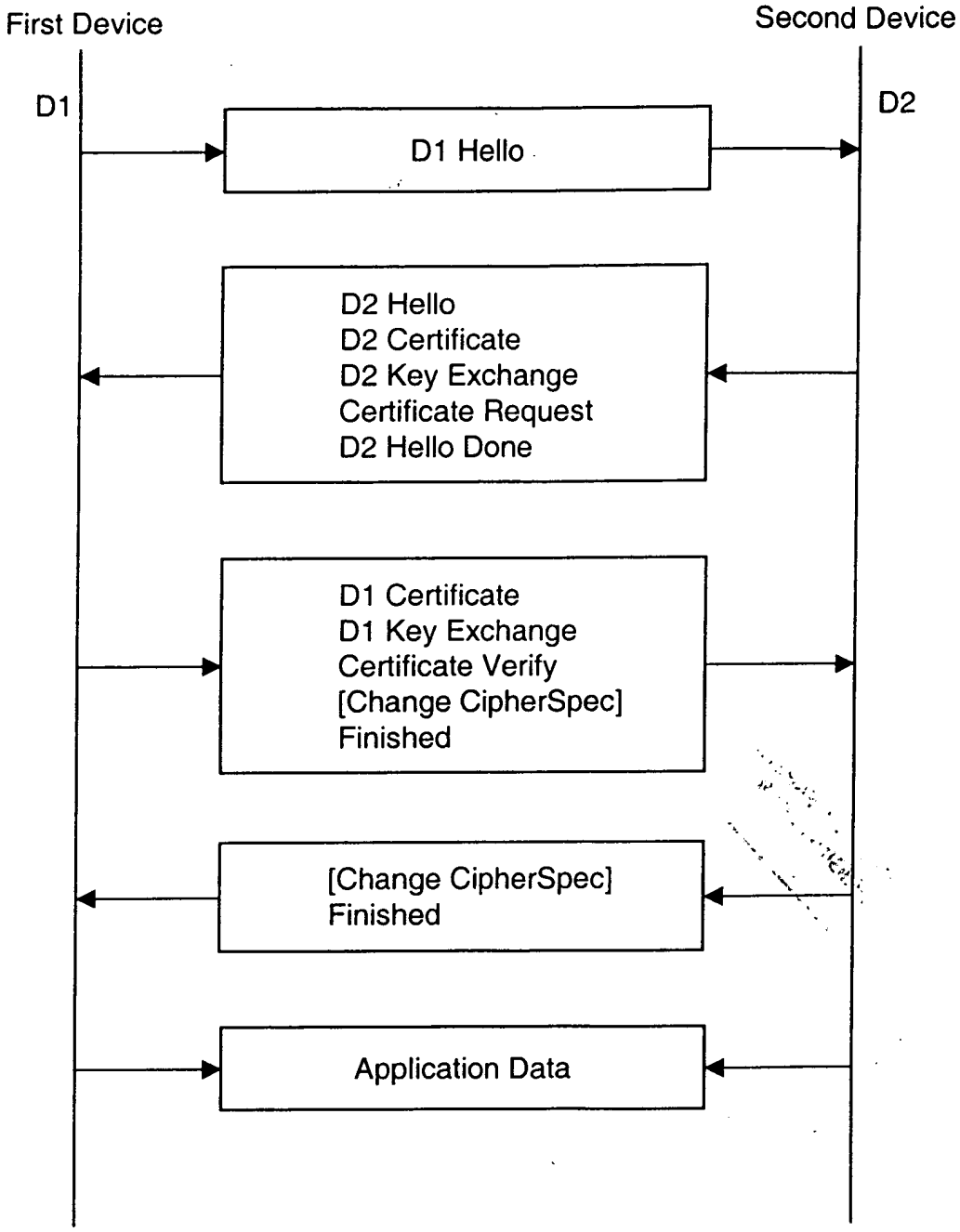
First Device
Second Device
D1
D2
D1 Hello
D2 Hello
D2 Certificate
D2 Key Exchange
Certificate Request
D2 Hello Done
D1 Certificate
D1 Key Exchange
Certificate Verify
[Change CipherSpec]
Finished
[Change CipherSpec]
Finished
Application Data

FIGURE 3

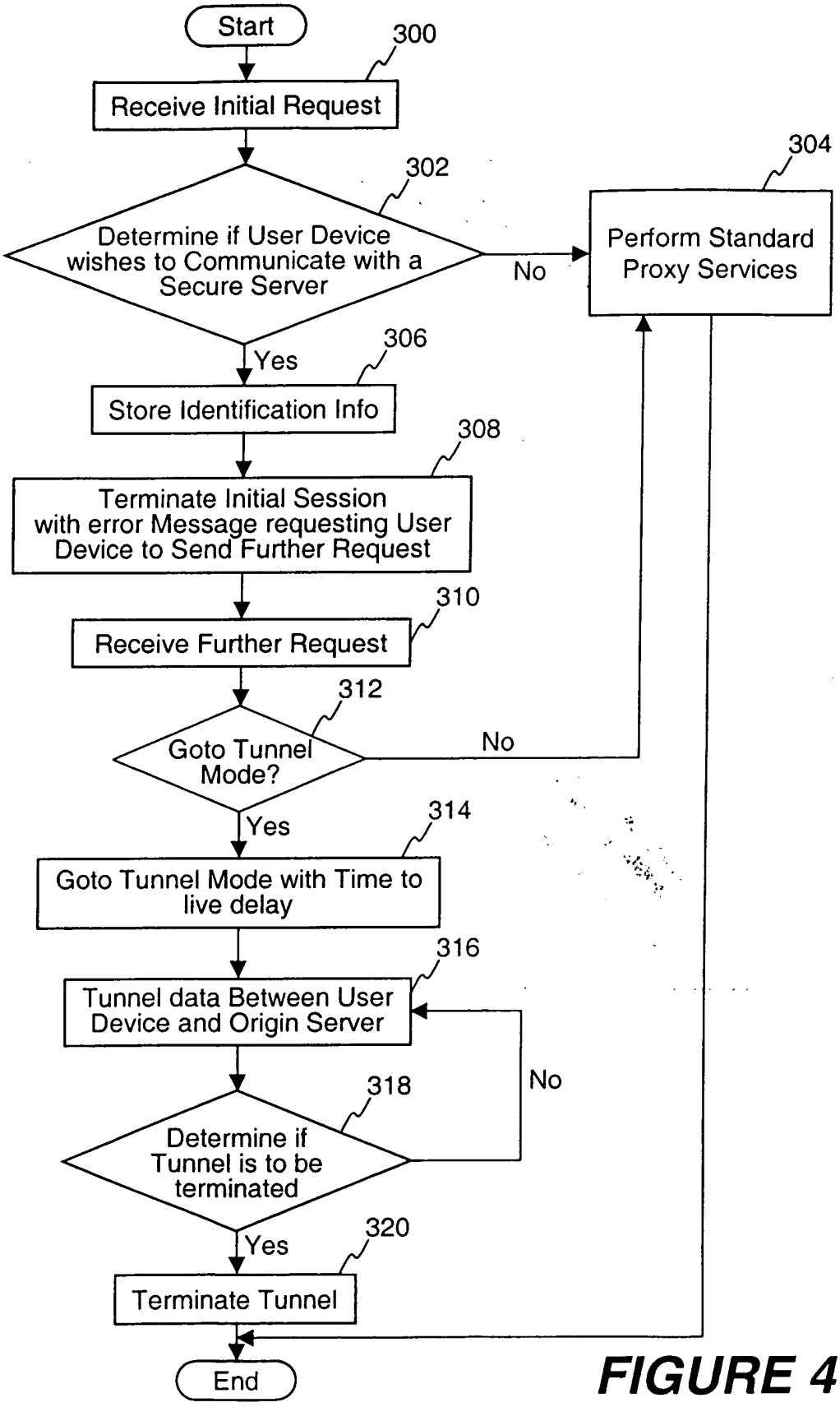
Start
300
Receive Initial Request
302
Determine if User Device wishes to Communicate with a Secure Server
No
304
Perform Standard Proxy Services
Yes
306
Store Identification Info
308
Terminate Initial Session with error Message requesting User Device to Send Further Request
310
Receive Further Request
312
Goto Tunnel Mode?
No
Yes
314
Goto Tunnel Mode with Time to live delay
316
Tunnel data Between User Device and Origin Server
No
318
Determine if Tunnel is to be terminated
Yes
320
Terminate Tunnel
End

FIGURE 4

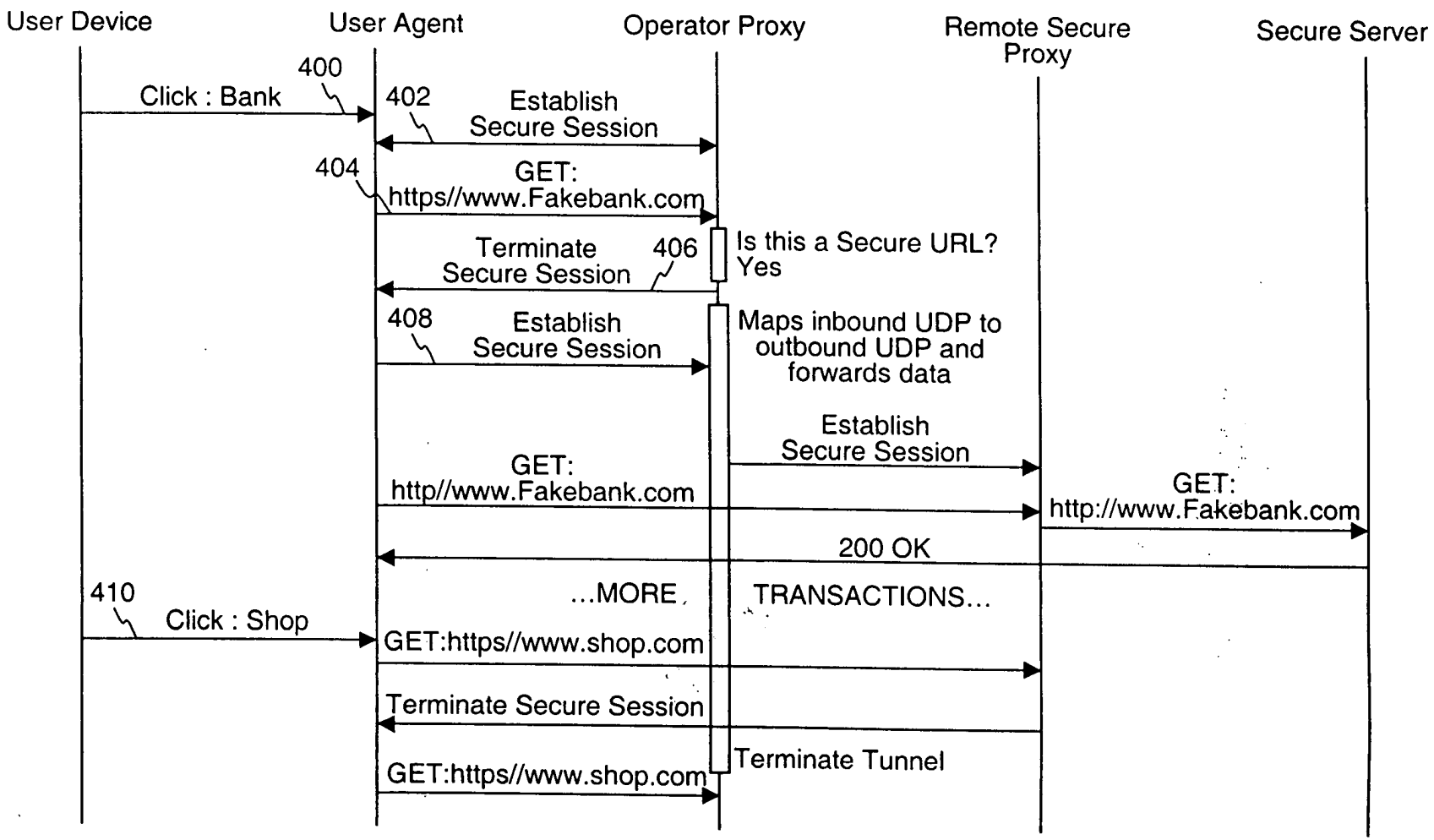
User Device
User Agent
Operator Proxy
Remote Secure Proxy
Secure Server
400
Click : Bank
402
Establish Secure Session
404
GET: https//www.Fakebank.com
Terminate Secure Session
406
Is this a Secure URL? Yes
408
Establish Secure Session
Maps inbound UDP to outbound UDP and forwards data
Establish Secure Session
GET: http//www.Fakebank.com
GET: http://www.Fakebank.com
200 OK
...MORE TRANSACTIONS...
410
Click : Shop
GET:https//www.shop.com
Terminate Secure Session
Terminate Tunnel
GET:https//www.shop.com

FIGURE 5

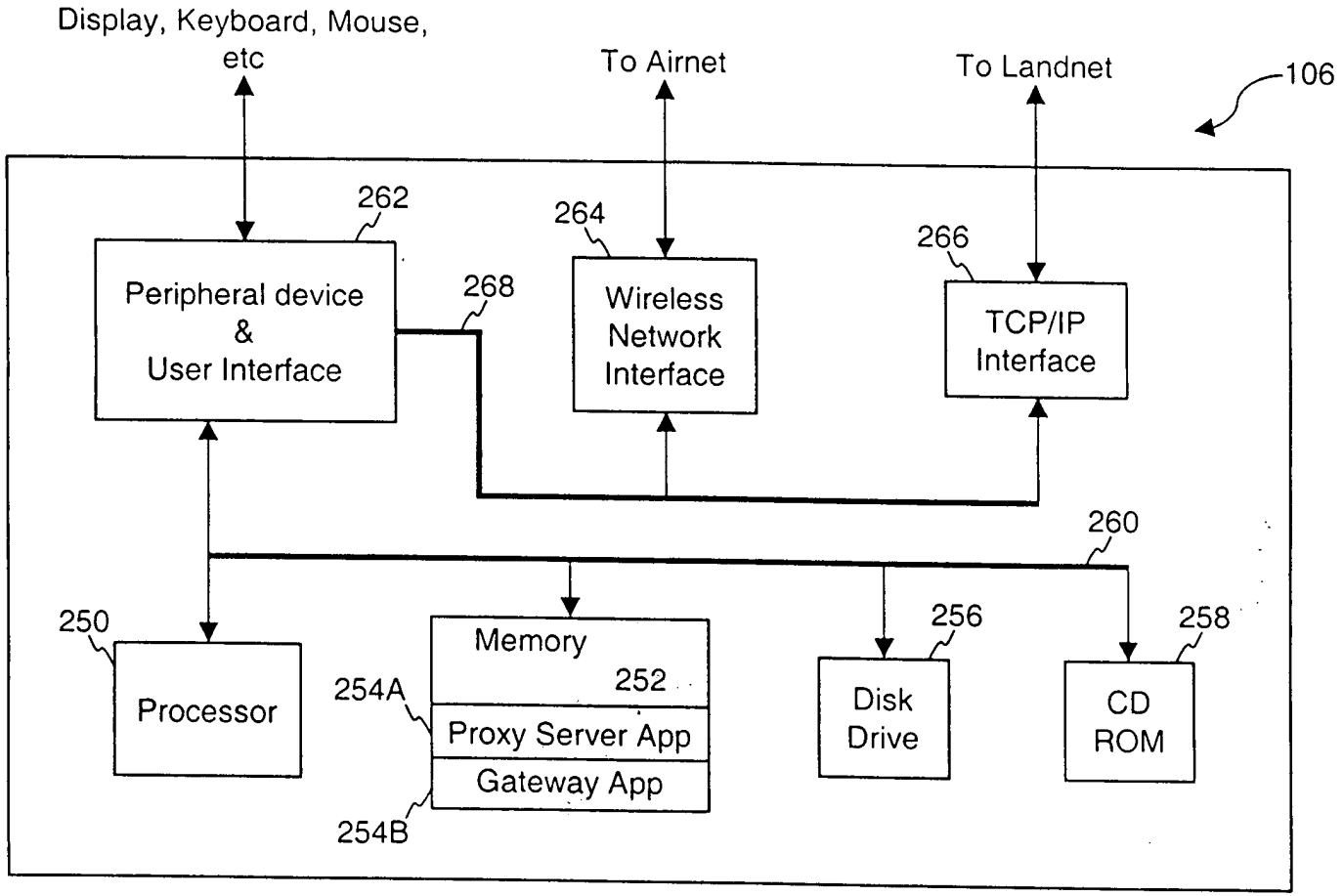
Display, Keyboard, Mouse, etc
To Airnet
To Landnet
106
262
264
266
Peripheral device & User Interface
268
Wireless Network Interface
TCP/IP Interface
260
250
Memory
252
254A
Proxy Server App
Gateway App
254B
256
258
Processor
Disk Drive
CD ROM

Figure 6